

July 27, 1988

TO: Atlas General File, M/037/051
FROM: Frank Filas, Reclamation Engineer
RE: Transfer and Bonding of Atlas Mine Sites

It is my understanding that Atlas Minerals is having a firesale and will be transferring up to eight of their mine sites or portions of them to other companies. The majority of these sites are overbonded at the present time because Atlas did not develop the mines to the extent proposed and they have done quite a bit of clean up and reclamation during the past five years. The current bond amount and a new bond estimate is listed below for seven of these mines. The estimate can, obviously, be reduced further if portions of the site(s) are reclaimed prior to permit transfer.

<u>Mine Name</u>	<u>File No.</u>	<u>Current Bond</u>	<u>Proposed Bond</u>
Patti Ann	M/037/003	\$30,210	\$23,800
Standard I	M/037/005	\$23,018	\$ 5,700
Rim/Columbus	M/037/006	\$57,068	\$36,100
Standard II	M/037/011	\$ 9,795	\$ 1,300
Dunn	M/037/017	\$45,441	\$13,200
Far West	M/037/019	\$105,061	\$35,300
Ivy	M/037/034	\$11,657	\$ 3,500
	Total	\$282,250	\$118,900

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Description:

The site covers 9.4 acres. A shaft and decline will have to be sealed. Two buildings will have to be removed and the foundations broken up and buried. The sides of main pad/waste dump have good vegetative growth and regrading of this area is not recommended. Most of the reclamation cost will be associated with regrading and topsoiling of the low grade ore stockpile and a small waste dump on top of the main pad. Rio Algom has recently removed some of the low grade ore which should reduce the reclamation cost further.

<u>Item</u>	<u>Amount</u>	<u>Rate</u>	<u>Cost</u>
Remove Structures and Debris	2 buildings & Substation	lump sum (assume some salvage)	\$3,000
Backfill Portal and Shaft		lump sum	\$1,000
Regrade Ore Stockpile & Waste Dump	24 hrs. D-6	\$100/hr	\$2,400
Haul in soil and cover stockpile and dump	6,000 yds.	\$1.50/yd	\$9,000
Rip & seed 9.4 acres plus 2 acre borrow areas	D-6 and two laborers 24 hrs.	\$130/hr	\$3,100
Seed	11.4 acres	\$70/ac.	\$,800
		Subtotal	\$19,300
		10% Contingency	\$1,900
		Total in 1988 \$	\$21,200
		Escalation (2.3% for 5 years)	\$2,600
		Total in 1993 \$	\$23,800

Standard I (Frazier Tunnel), M/037/005

Description:

Site encompasses five acres and consists of a narrow pad area on top of an elevated dump. The top of the dump was regraded successfully in 1983 to minimize erosion. The dump side is very steep but cannot be regraded because it toes out next to a county maintained road. Final reclamation will probably encompass removal of four small buildings and an old wood loadout on the side of the dump; closure of the decline, and ripping and seeding of the road and top of dump.

<u>Item</u>	<u>Amount</u>	<u>Rate</u>	<u>Cost</u>
Removal of structures and debris	4 buildings wood loadout	lump sum (no salvage)	\$3,000
Close decline	backfill & blast the brow down	lump sum	,500
Rip and Seed 4 acres	D-6 w/one laborer 8 hours	\$115/hr	,900
Seed cost	4 acres	\$50/ac	,200
		Subtotal	\$4,600
	10% Contingency		,500
	Total in 1988 \$		\$5,100
	Escalation (2.3% for 5 years)		,600
	Total in 1993 \$		\$5,700

Rim/Columbus, M/037/006

Description:

This site encompasses approximately 16 acres. Twelve of these acres are located atop the mesa and the remaining four acres encompass waste dumps which are next to two portals on the side of the mesa. A letter by Sue Linner to Atlas in 1985 states that the operator will be responsible for sealing the portals located on the side of the mesa (Columbus and Humbug), but no waste dump reclamation in this area is indicated. Final reclamation of the site will also encompass removal of several small buildings and the hoist structure. The waste and stockpile areas and the treatment ponds will have to be regraded and covered with available topsoil.

<u>Item</u>	<u>Amount</u>	<u>Rate</u>	<u>Cost</u>
Removal of Structures and debris	Buildings and hoist	Lump sum (limited salvage)	\$5,000
Plug Boreholes	2	\$250/ea	,500
Seal Portals	2	\$750/ea	1,500
Backfill & Seal Shaft	1	\$2,000/ea	2,000
Regrade & Topsoil 12 acres	160 hours D-7	\$110/hr	17,600
Rip & Seed 12 acres	D-7 w/one laborer 16 hours	\$125/hr	2,000
Seed	12 acres	\$60/ac	,700
		Subtotal	\$29,300
		10% Contingency	2,900
		Total in 1988 \$	32,200
		Escalation (2.3% for 5 years)	3,900
		Total in 1993 \$	\$36,100

Standard II, M/037/011

Description:

Most of this site has been reclaimed. The ore pad area and access road will have to be ripped and seeded.

<u>Item</u>	<u>Amount</u>	<u>Rate</u>	<u>Cost</u>
Rip & Seed Three acres	D-6 w/one laborer 8 hours	\$115/hr	\$,900
Seed	3 acres	\$70/ac	,200
		Subtotal	\$1,100
10% Contingency			,100
Total in 1988 \$			\$1,200
Escalation (2.3% for 5 years)			,100
Total in 1993 \$			\$1,300

Dunn Mine, M/037/017

Description:

Atlas originally proposed to disturb 34 acres, but development was curtailed at an early date with approximately 5 acres disturbed. The onsite building and evaporation ponds will probably be kept to support the post mining land use of farming. The decline and borehole will have to be sealed and the wastepile will have to be regraded and topsoiled. Topsoil has been stockpiled.

<u>Item</u>	<u>Amount</u>	<u>Rate</u>	<u>Cost</u>
Remove Debris		Lump sum	\$,500
Regrade waste dump and topsoil	D-7 80 hours	\$110/hr	8,800
Rip and seed 5 acres	D-7 w/laborer 8 hours	\$125/hr	1,000
Seed	5 acres	\$80/ac	,400
		Subtotal	\$10,700
10% Contingency			1,100
Total in 1988 \$			\$11,800
Escalation (2.3% for 5 years)			1,400
Total in 1993 \$			\$13,200

Far West, M/037/019

Description:

This mine used to be Atlas' Big Indian headquarters. The site now consists of approximately a dozen large butler buildings on a 15 acre pad area. An asphalt road accesses the site and will have to be reclaimed unless the BLM desires to keep it. One decline is also present on site. Atlas has completed a good deal of clean-up and salvage on this site.

<u>Item</u>	<u>Amount</u>	<u>Rate</u>	<u>Cost</u>
Remove Buildings	12 buildings	lump sum	\$10,000
Seal Portal	1	lump sum	1,000
Reclaim Road	60 hours FE Loader, D-7, haul truck	\$200/hr	12,000
Regrade pad area	D-7 24 hours	\$110/hr	2,600
Rip & Seed pad and road area (20 acres)	D-7 w/one laborer 16 hours	\$125/hr	2,000
Seed	20 acres	\$50/ac	1,000
		Subtotal	\$28,600
10% Contingency			2,900
Total in 1988 \$			\$31,500
Escalation (2.3% for 5 years)			3,800
Total in 1993 \$			\$35,300

Ivy, M/037/034

Description:

Atlas regraded the pad area on this 3.5 acre site in 1982. The associated waste dump is small and overgrown with vegetation. Final reclamation will require backfilling of the portal and the installation of a bulkhead on the maintenance shop. A cement foundation will have to be buried and the pad area ripped and seeded. It is recommended that seed be broadcast and hand raked on the dump bare areas.

<u>Item</u>	<u>Amount</u>	<u>Rate</u>	<u>Cost</u>
Seal Portals	2	\$750/ea	1,500
Bury Foundation, Rip and Seed	D-7 w/two laborers 8 hours	\$140/hr	1,100
Seed	3 acres	\$60/ac	,200
		Subtotal	\$2,800
10% contingency			,300
Total in 1988 \$			\$3,100
Escalation (2.3% for 5 years)			,400
Total in 1993 \$			\$3,500

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